



United States  
Office of Personnel Management

# **FWS Job Grading Standard for Fuel Distribution System Operator**

**5413**

**TS-69, 7/93**

**Workforce Compensation and Performance Service  
Classification Programs Division  
June 1998, HRCD-5**

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## COVERAGE OF STANDARD

This standard covers nonsupervisory work involved in working at one or several work stations of a fuel distribution system, or operating a complete system, to receive, store, transfer, and issue petroleum and other products such as liquid oxygen, liquid nitrogen, and anhydrous ammonia.

## WORK NOT COVERED

The standard does not cover work that primarily involves:

- Operating refueling vehicles when the operation of the vehicle represents the highest level of work. (See [Job Grading Standard for Motor Vehicle Operator, 5703.](#))
- Operating fuel pumps at service stations and motor pools to service vehicles. (See [Job Grading Standard for Mobile Equipment Server, 5806.](#))

## TITLES

Jobs covered by this standard at grade 10 and above are titled *Fuel Distribution System Operator*. Jobs at grade 9 and below are titled *Fuel Distribution System Worker*.

## GRADES

This standard does not describe all possible grades at which jobs might be established. If jobs differ substantially from the skill, knowledge, or other work requirements described for grade levels in the standard, the jobs may be graded above or below the levels described based upon sound job grading methods.

## SPECIAL ADDITIONAL RESPONSIBILITIES

This section provides guidance for determining the grade level of certain plant operating situations. The Fuel Distribution System Operator Standard describes normal operation.

However, employees in certain fuel distribution operations work under special circumstances. When positions clearly meet the criteria described below, one additional grade may be credited to plant operator positions at the full performance level whether they work alone or with a small group of plant operating employees. It is the intent of this provision that only one operator on each shift be credited with an additional grade for shift-level responsibility.

Additional grade credit will be added only to plant operators at the full performance level who are assigned shift responsibility on a regular and recurring basis. Credit will not be given to plant operators who regularly work when a shift supervisor is present or at a nearby facility.

Most fuel distribution system plants run on a 7-day, 3-shift plan. Operators may be assigned to a specific shift or alternate working on all three shifts, including weekends. On second and third shifts and on weekends, one operator is typically designated as the "operator in charge" of the complete plant, including ancillary and stand-alone fuel distribution system facilities which may be geographically dispersed, and he or she is responsible for following instructions which are typically supplied in writing from a supervisor or by the "operator in charge" on the previous shift. The "operator in charge" typically performs additional duties which are more responsible and require a slightly higher level of skill and knowledge than full performance level operators who are on duty where a supervisor is available to provide specific guidance and assistance.

The "operator in charge" must have a thorough knowledge of the entire fuel distribution system and user requirements in order to locate problems and initiate immediate corrective action to maintain adequate fuel distribution. He or she, in the absence of written contingency procedures, must have the responsibility to decide whether to shut down a fuel distribution system and, if so, whether equipment still in operation can handle the load or whether to attempt to bypass the trouble until corrective action has been completed. Typically, the "operator in charge" has responsibility to determine what work must be done and has the authority to approve overtime or to call in necessary maintenance personnel. The operator is responsible for relaying instructions to the next shift operator including problems encountered and action taken.

While these and other similar situations do not describe supervisory responsibilities, they represent situations which indicate that individuals designated as "operator in charge" have more responsibility and a higher level of skill and knowledge than operators who have a supervisor who is available for technical advice and guidance.

**5413-6****Fuel Distribution System Worker, Grade 6****5413-6**

*General:* Fuels distribution system workers at this grade level do responsible, but relatively routine work such as pumping gasoline, oil, jet fuel, and other similar products, handling lines and hoses at dock operations, and measuring fuels as they are received, stored, transferred, or loaded into equipment. They regularly use the skill and knowledge of routine operations like loading or emptying equipment such as rail tank cars, ships, or aircraft.

*Skill and Knowledge:* Grade 6 workers are regularly assigned to one or more specialized stations in a fuel distribution system to perform a single operation during the assignment. For example:

- On a loading dock, grade 6 workers spot tank cars in proper position and inspect tank cars for possible leaks. They monitor tank temperature, connect and disconnect hoses and open and close valves, checking periodically for leaks. They may enter tank cars and cause the fuel to move toward suction lines. As directed, they take samples for analysis by others.
- At a tank truck loading rack or wharf, they operate equipment to transfer gasoline, diesel fuel, or other petroleum products from storage tanks to aircraft tank trucks, motor launches, and similar crafts or vehicles. They check the condition of receiving tanks, couple and uncouple hoses, read meters, open and close valves, operate the pumps, and record amounts that are transferred.
- On dockside operations, they secure mooring lines, place warning signs or barricades, rig and connect oil or steam hoses between small craft and barges, shore pipelines, and regulate the flow of fuel oil or ballast. They stand watch during pumping operations, observing pressure gauges, taking temperature and oil depth readings, adjusting rollers or dollies to prevent chafing or pinching of hoses and patrol the pier area to look for and eliminate potential hazards.
- At an assigned pit in a hydrant refueling system, grade 6 workers record meter readings together with the identification number of aircraft to be refueled and record the information. They open the header valve in the pit, set the remote control switch, and hook up the hydrant after making certain the aircraft is properly grounded. During pumping operations, they start and stop pumps or stand by with an emergency cut-off to stop the pump at the control house if an accident occurs. They close the receiving valves when pumping operations have been completed, drain the hose, record the meter reading, and obtain signatures to show delivery.

As indicated by the examples described above, grade 6 workers are required to know how to operate one or more relatively routine work stations and demonstrate skill in manipulating a few controls to regulate the flow of the liquids in a safe and efficient manner.

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*Responsibility:* A higher grade worker or a supervisor assigns grade 6 workers the responsibility for performing their work according to prescribed operating instructions. The workers are required to follow instructions without deviation except as permitted by the supervisor or higher grade worker or where operating instructions and safety regulations outline alternatives. Work is spot-checked for compliance with procedures and instructions.

*Physical Effort:* Grade 6 workers exert light to moderate physical effort while performing operations such as coupling and uncoupling equipment. They may lift or carry items that weigh up to 23 kilograms (50 pounds). The heavier items are moved with assistance from workers or with weight handling equipment. The work requires considerable standing, walking, bending, working in cramped conditions, and climbing on tanks, rigging, and other equipment.

*Working Conditions:* Grade 6 workers work outside and are exposed to all weather conditions. Protection from weather is typically limited to building extensions, tarpaulins, and storage shed roofs. They follow safety regulations and use safety equipment to avoid possible hazards in the work area.

**5413-8****Fuel Distribution System Worker, Grade 8****5413-8**

*General:* In comparison with grade 6 workers who do repetitive work at less complex work stations, grade 8 workers use greater skill to work at more complex stations or they operate a portion of a complete distribution system. Most of the work at this grade level is done at activities such as large fuel depots or fuel farms with complex, interconnecting line and pipe arrangements and frequent requirements for large scale movement and transfer of a variety of liquid fuels. Grade 8 workers typically work at several stations during their work cycle, and the nature of the assignments usually requires them to coordinate their work with the work of others.

Work at this level is usually done at sites where the supervisor is not immediately available when unusual problems occur. Grade 8 workers are accountable for compliance with prescribed work methods, regulatory requirements, and safety considerations.

*Skill and Knowledge:* Grade 8 workers use skills to operate complex work stations or portions of a large fuel distribution system and other portions of the system in order to coordinate their work with the work of others, for example:

- They operate various types of pumps used to load, unload, and transfer fuel oils, gasoline, and jet fuels through pipelines and hoses to and from tank farms, fueling pits, ships, aircraft, tankers, railroad tank cars, and tank trucks. They work from loading and pipeline transfer schedules and from instructions received from a supervisor or a system operator.
- They unload, load, transfer, or store fuel supplies by operating compressed air, electric, diesel, gasoline or steam pumps, and accessory equipment. They make adjustments to maintain adequate pressure, and start or stop pumps in accordance with tank gauge readings, warning horns, signal lights, and operating needs and instructions. They set pipeline and tank valves and manifolds, or issue appropriate instructions to a worker who operates the gauges. They maintain records of fuel transfers. They load and unload tank cars, pump ballast from oil tankers, and remove water and sediment from storage tanks and other facilities.
- When gauging tanks, grade 8 workers sound tanks, using plumb bob and scale, before, during, and at the end of fuel operation to determine the net volume received or issued. They observe rates of flow from dial gauge readings and check stray water content of tanks using special paste on measuring tapes. They take temperature readings of liquid fuels at various levels in tanks, compute mean temperature, and from a table, convert volume at tank temperature to an equivalent volume at standard temperature. They keep records such as gauge and scale readings and volume transferred, and they take samples of fuels for laboratory analysis.
- They patrol pipelines and tank farm areas, examining facilities and equipment, reporting the need for repairs, and perform general maintenance work, such as flushing tanks, cleaning nozzle strainers, pit box strainers, truck loading stand strainers, fill line strainers, and water line strainers.

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As indicated by the examples described above, grade 8 workers are required to know the operation of one or several complex work stations in a distribution system and they demonstrate skill to manipulate the numerous controls to properly regulate the flow of the liquids in a safe and efficient manner.

*Responsibility:* Higher grade workers or supervisors who are responsible for the operation of the complete fuels distribution system assign grade 8 workers the responsibility to perform assignments according to manuals and prescribed directives that outline the work to be performed and the safety and security measures needed to avoid potentially unsafe conditions. Grade 8 workers take necessary action to insure correct and safe operating conditions in emergency situations and have the authority to deviate from standard procedures if necessary. Work at this level is accomplished with no in-progress review. Completed work may be spot-checked to assure compliance with procedures, instructions, and established practices.

*Physical Effort:* Same as [grade 6 level](#).

*Working Conditions:* Same as [grade 6 level](#).

**5413-10                      Fuel Distribution System Operator, Grade 10                      5413-10**

*General:* In comparison to grade 8 workers who work at a series of stations in a fuel distribution system, employees at this grade level initiate and control the movement and storage of fuel supplies by operating high pressure systems with a series of terminals connected by cross-country pipelines or multifuel storage and distribution facilities connected by a network of internal pipelines. The movement and transfer is controlled by grade 10 operators by using telephone communications, electric signals, a central control board or similar methods that are either completely automatic or where one or two workers assist by controlling a portion of system.

*Skill and Knowledge:* Grade 10 operators operate petroleum products distribution equipment by initiating and controlling the movement and storage of supplies throughout complete pipeline or tank farm systems, using telephone communications, signal systems, a central control board, or similar facilities. For example:

- They operate or issue orders by telephone to other workers to clear lines and open or close the valves in proper sequence to provide an open pipeline from a point of origin of shipment to a destination, in accordance with pipeline transfer schedules and related instructions. They record valve settings on a central control board and initiate, control, and terminate fuel transfers. They record gauge readings that are received at regular intervals from shipping transfer and receiving points, and prepare a report of transfer. They determine if facilities are functioning properly. If discrepancies appear, the operators stop the transfer and order an investigation and correction of trouble.
- Grade 10 operators direct loading and unloading of oil tankers and transferring of fuel from one storage tank to another. They order the setting of lines and test the electrical signal system which actuates pressure alarm systems, warning horns, and signal lights. They operate a remote control switchboard to start and stop shiploading and booster pumps and match pressure gauges during loading. They calculate the rate of flow of fuel to determine if pumps are developing maximum output and regulate tank feed controls to obtain adequate suction.
- Grade 10 operators control transfers to and from leased tank farm storage and pipeline facilities using a knowledge of the condition of the line, what type of oil is in the line, whether or not it is necessary to displace the existing oil with water before pumping the product through the line, and where displaced oil should be stored pending completion of the operation.
- They periodically test the system and examine it for leaks by pressurizing it and examining parts and controls such as the fill and gauge couplings, packing nuts on valves, strainer caps, exposed tank and water trap connections, plugs and caps on air chambers, water control manifold valves, exposed piping and controls in fueling and utility pits, and hoses and swing joints.



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As indicated in the examples described above, grade 10 operators are required to know how to run one or several complete and complex systems and to have skill to operate all the controls to regulate and transfer bulk fuel and other products in a safe and efficient manner.

*Responsibility:* Grade 10 operators receive work assignments from a supervisor or a higher grade operator either orally or in writing. They are responsible for the operation of the system, the accountability for the fuel received, stored, transferred, and issued, and proper and safe handling procedures. They are responsible for keeping records and making reports on items such as tank readings, amounts received, distributed and dispensed, intermix of fuels, and unsafe or hazardous conditions. Grade 10 operators are required to determine the method and sequence of work processes to be used and to control the kind and amount of fuel, and the sequence and method of moving the fuel, by operating the equipment from a central station. They comply with regulations and provide efficient service in accordance with the demands on the system.

*Physical Effort:* Same as [grade 6 level](#).

*Working Conditions:* Same as [grade 6 level](#).